CLAIM AMENDMENTS:

 (Currently amended) A method of transfecting dendritic cells comprising: providing dendritic cells;

providing a transfection agent comprising a polynucleotide adsorbed on surfaces of and microparticles, said microparticles transfection agent being formed by a process that comprises: (a) providing microparticles comprising a biodegradable polymer and a cationic detergent, and (b) exposing said microparticles to said polynucleotide, said polynucleotide encoding an antigen associated with a virus, a bacterium, a parasite, a fungus or a tumor; and

incubating the dendritic cells and the transfection agent ex vivo for a time sufficient to transfect the dendritic cells with the polynucleotide, thereby leading to the expression of said antigen.

- 2. (Original) The method of claim 1, wherein the dendritic cells originate from bone marrow.
- 3. (Original) The method of claim 1, wherein the dendritic cells originate from blood.
- 4. (Original) The method of claim 1, wherein the dendritic cells originate from a vertebrate subject.
- 5. (Previously presented) The method of claim 1, wherein the dendritic cells originate from a human subject.
- 6. (Previously presented) The method of claim 1, wherein the cationic detergent is cetyl trimethyl ammonium bromide.
- 7. (Previously presented) The method of claim 1, wherein the cationic detergent is cetrimide.

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- 8. (Original) The method of claim 1, wherein the polymer is a poly(α -hydroxy acid).
- 9. (Original) The method of claim 1, wherein the polymer is a poly(lactide).
- 10. (Original) The method of claim 1, wherein the polymer is a copolymer of D,L-lactide and glycolide or glycolic acid.
- 11. (Original) The method of claim 1, wherein the polymer is a poly(D,L-lactide-co-glycolide).
- 12. (Original) The method of claim 1, wherein the polymer is a copolymer of D,L-lactide and caprolactone.
- 13. (Original) The method of claim 1, wherein the dendritic cells are cultured for about 5 days prior to transfection.
- 14. (Previously presented) The method of claim 1, wherein the dendritic cells are cultured for about 5 to about 10 days prior to transfection.
- 15. (Original) The method of claim 1, wherein the dendritic cells and transfecting agent are incubated for about 24 hours.
- 16. (Previously presented) The method of claim 1, wherein said polynucleotide is provided in the form of a plasmid.
- 17. (Cancelled)
- 18. (Currently amended) The method of claim 17 claim 1, wherein the antigen is associated with human immunodeficiency virus, herpes simplex virus, hepatitis B virus,

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hepatitis C virus, human papillomavirus, influenza A virus, meningitis A, meningitis B, or meningitis C.

- 19. (Currently amended) A method for producing an immune response comprising administering, to a vertebrate subject in need thereof, an effective amount of dendritic cells produced by the method of elaim 17 claim 1.
- 20. (Original) The method according to claim 19, in which the dendritic cells originate from the vertebrate subject.
- 21. (Original) The method according to claim 19, in which the dendritic cells originate from a healthy vertebrate subject MHC-matched to the vertebrate subject.
- 22. (Original) The method according to claim 19, in which the dendritic cells are administered parenterally.
- 23. (Original) The method according to claim 19, in which the dendritic cells are administered by direct injection into affected tissue.
- 24. (Cancelled)
- 25. (Cancelled)
- 26. (Cancelled)
- 27. (Cancelled)
- 28. (Cancelled)
- 29. (Currently amended) Antigen presenting dendritic cells made by the method of-claim 17 claim 1.
- 30. (Previously presented) The method according to claim 1, wherein said microparticles have diameters ranging from about 500 nm to about 30 μm .

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- 31. (Original) The method according to claim 1, wherein said transfection agent contains on the order of 1% w/w polynucleotide.
- 32. (Cancelled)
- 33. (Currently amended) The method of elaim 17 claim 1, wherein said polynucleotide encodes a viral antigen.
- 34. (Currently amended) The method of claim 17 claim 1, wherein said polynucleotide encodes a tumor antigen.
- 35. (Currently amended) The method of elaim 17 claim 1, wherein said polynucleotide encodes a bacterial antigen.
- 36. (Currently amended) The method of elaim 17 claim 1, wherein said polynucleotide encodes a parasitic antigen.
- 37. (Currently amended) The method of <u>claim 17 claim 1</u>, wherein said polynucleotide encodes a fungal antigen.
- 38. (Previously presented) The method of claim 19, wherein said polynucleotide encodes a viral antigen.
- 39. (Previously presented) The method of claim 19, wherein said polynucleotide encodes a tumor antigen.
- 40. (Previously presented) The method of claim 19, wherein said polynucleotide encodes a bacterial antigen.

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- 41. (Previously presented) The method of claim 19, wherein said polynucleotide encodes a parasitic antigen.
- 42. (Previously presented) The method of claim 19, wherein said polynucleotide encodes a fungal antigen.
- 43. (Previously presented) The method of claim 19, wherein said polynucleotide encodes a human immunodeficiency virus antigen, a herpes simplex virus antigen, a herpatitis B virus antigen, a hepatitis C virus antigen, a human papillomavirus antigen, an influenza A virus antigen, a meningitis A antigen, a meningitis B antigen, or a meningitis C antigen.
- 44. (Previously presented) The method of claim 19, wherein the detergent is cetyl trimethyl ammonium bromide.
- 45. (Cancelled)
- 46. (Previously presented) The method of claim 1, wherein at least a portion of said polynucleotide is entrapped within said microparticles.
- 47. (Cancelled)
- 48. (Cancelled)
- 49. (Cancelled)
- 50. (Previously presented) The method of claim 19, wherein at least a portion of said polynucleotide is entrapped within said microparticles.
- 51. (Cancelled)
- 52. (Currently amended) The method of any of claims 1-7, 13-23, 29-31, 33-44, 46 and 50 and 46-51, wherein the polymer is a poly(lactide-co-glycolide).

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53. (Currently amended) The method of any of claims 1-15, 19-23, 29-32 29-31, 44, 46 and 50, and 46-51 wherein the polynucleotide is an expression vector encoding an antigen associated with a virus, a bacterium, a parasite, a fungus or a tumor.